

AMENDMENT UNDER 37 C.F.R. § 1.116
U.S. Appln. No. 09/865,733

REMARKS

Claims 1-13 remain in the application, the claims having been amended to more clearly define the invention. Applicant notes with appreciation the indication of allowable subject matter in claim 6, but respectfully requests reconsideration of the application and allowance of all claims in view of the above amendments and the following remarks.

The invention is directed to a particular improvement in video coding. In the H.263+ standard, motion prediction is confined to independent segments so that, among other things, errors will not propagate through the picture but will be confined to a segment. In Fig. 1, each segment is made up of two groups of blocks GOBi, with each segment being separated from an adjacent segment by a synchronization signal Sync. GOB2 and GOB3 make up one segment, and GOB4 and GOB5 make up another. When predicting motion of the macroblock MBx along the upper edge of the segment, the invention permits use of the macroblocks in the group GOB3 belonging to the immediately above segment.

It appears that the examiner has overlooked what is meant by motion detection. Neither the block nor the segment in the present invention is moving, but rather the image within them is moving. It is this motion of the image which is being predicted. Kim deals with encoding the contour of an object in a picture. A contour is not a “segment” of a picture but is rather something that is being displayed in the picture. Movement of the contour in Kim is analogous to movement of the image in the present invention. But the image is not a segment as that term is used in the art and in the present application. Not surprisingly, the reading of the claim of the present application on what is shown and described in Kim does not hold up.

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In the “Response to Arguments” section beginning at page 2 of the present Office action, the examiner defines a block as consisting of 8x8 square pixels. But Kim does not talk of blocks. Kim does describe extending a current contour over neighboring pixels to generate an extended contour, but there is no discussion of blocks. Introduction of the concept of blocks into Kim is only by the examiner. Further, according to the examiner, a contour in Kim corresponds to a claimed “segment.” But Kim is predicting motion of the contour, so that would mean that Kim is predicting motion of a segment according to the reading of the examiner.

What is in fact happening is that Kim is predicting the motion of an image component, similar to the present invention predicting motion of video. But the present invention is predicting motion of an image component within a block or macroblock. Kim is not predicting the motion of the contour within anything except the overall image. Since Kim is not confining the motion prediction to any part of his image, there are no “edges”, and there is no “boundary” to cross over.

It is also noteworthy that if the examiner is going to consider a “contour” to correspond to a claimed “segment,” then to satisfy the claim language it would be necessary to have a motion estimation vector that extends from one contour into an adjacent contour. There is nothing like this suggested in Kim.

The present invention is directed to an improvement in a system of the type that divides the picture into a plurality of segments made up of macroblocks. If the picture is divided in this way, there will be blocks along the edge of each segment. The improvement is to allow the motion vector associated with an edge block of one segment to extend into the adjacent segment.

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To teach this, Kim must first teach the division of the picture into a plurality of segments made up of macroblocks. This is clearly recited in claims 1 and 10 but is not found in Kim. The examiner has not identified what in Kim would correspond to the claimed plurality of segments each made up of macroblocks. There is only one contour discussed in Kim. Perhaps there is another one not described, but this is not anticipation. Further, even if there were another contour, there is none adjacent to the contour illustrated in Kim. And the claim cannot be construed such that the region inside the contour is one segment and the immediately adjacent region outside the contour is another segment, because in this “other segment” there is no motion prediction at all in Kim.

For the above reasons, it is submitted that the claims in their present form patentably distinguish over the cite art. Nonetheless, to further clarify and to preclude the possibility of what applicant considers to be an unreasonable construction of the claim language and application of that claim language to a prior art system that does not touch on the novel aspects of the claimed invention, applicant herein amends the independent claims to clarify that the division into segments is independent of the image information within the segment. Entry of this amendment is respectfully requested in that it clearly avoids a reading on Kim and thereby places all claims in condition for allowance, and does not raise any new issues because it is simply reciting what the ordinarily skilled artisan would have read the claim language as requiring in any event.

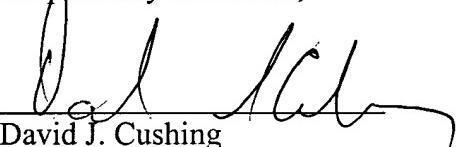
In view of the above, a Notice of Allowance is respectfully requested.

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If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, he is kindly requested to **contact the undersigned** at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



David J. Cushing
Registration No. 28,703

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

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